

**REMARKS**

STATUS OF THE CLAIMS

Claims 1 and 3-9 are pending in the application.

Claims 1 and 3-8 are rejected under 35 USC 101 for allegedly being directed to non-statutory subject matter.

Claims 1, 3 and 6-9 are rejected under 35 USC 112, second paragraph, for being indefinite.

Claims 1, 3-5, 7 and 9 are rejected under 35 U.S.C. 102(e) as anticipated by Grun (US Patent Publication 2004/0107304).

Claims 6 and 8 are rejected under 35 USC 103(a) as being unpatentable over Grun in view of Official Notice.

According to the foregoing, the claims are amended, and, thus, the pending claims remain for reconsideration, which is respectfully requested.

No new matter has been added.

35 USC 101 REJECTION

The Office Action alleges a client/server system as claimed does not include any functional structure of an apparatus. According to the foregoing, the claims are amended clarifying the functional structure of the claimed server and client. For example, the claims recite "a computer server, comprising, a client-side software at the server ~~to generate~~generating operating instructions for an I/O device connected to a client ..."."

Further, the Office Action alleges an apparatus comprises software is considered program per se, which is not one of the categories of statutory subject matter. The claims are amended taking into consideration the Examiner's comments. Further, this rejection has no foundation in law, because the claims comply with 35 USC 101 by clearly reciting "A computer client/server system" which is an apparatus, falling into the 'machine' statutory subject matter category of 35 USC 101. The claims clearly recite the claimed "computer client/server system" comprises a "computer server" and a "computer client," both of which are apparatuses

performing the claimed operations of "generating operating instructions ... controlling input and output ... interfacing with the client-side device driver at the server ... receiving the input-output control from the virtual I/O port in the server and to redirecting the event from the I/O device connected to the client to the virtual I/O port in the server." FIG. 2 supports the claim amendments.

Further, the rejection has no foundation in MPEP 2106 - 101 statutory subject matter - guidance, because nowhere does the MPEP 2106 provide that an apparatus including software is considered a program per se. According to MPEP 2106 IV.A guidance, subject matter outside of the four statutory categories might be abstract ideas, laws of nature and natural phenomena. Office Action rejection does not assert and none of claims recite an abstract idea, a law of nature or natural phenomena.

In view of the claim amendments and remarks, withdrawal of the statutory subject matter rejection is respectfully requested.

#### 35 USC 112, 2<sup>ND</sup> PARAGRAPH REJECTION

According to the foregoing, the claims are amended taking into consideration the Examiner's comments. Withdrawal of the indefiniteness rejection is respectfully requested.

#### PRIOR ART REJECTIONS

The Office Action Response to Arguments, in items 14-16, alleges Grun's host channel adapter 18 being inherently the claimed "virtual I/O port," because Grun's host channel adapter 18 functions as the claimed "virtual I/O port" to interface and to pass instructions to Grun's I/O port of the I/O controller 24 in the I/O unit 14. However, to one skilled in the art, the phrase 'channel adapter' refers to receiving messages and transforming those messages into the proper format for each delivery channel. In other words, a 'channel adapter' provides the specification for the transmission of data between a processor and an I/O device. In contrast, a virtual I/O port does not require a physical I/O port access, since the virtual I/O port emulates a physical I/O port for a device driver by "interfacing with the client-side device driver at the server with an interface having same function as an the client-side I/O port at the client as the client-side I/O port for the client-side device driver at the server by transmitting an input-output control received from the client-side device driver at the server and informing the client-side device driver at the server of an event received from the I/O device connected to the client."

It is respectfully submitted that a 'channel adapter' does not inherently function as the claimed "virtual I/O port in the server," because a 'channel adapter' merely provides message specification, and Grun's 'channel adapter' 18 does not emulate a physical I/O port needed by a device driver. The language of the claims expressly provides "a virtual I/O port at the server to provide interfacing with the client-side device driver at the server with *an interface having same function as an the client-side I/O*," which is not an inherent or a necessary function of a 'channel adapter.' In fact, a 'channel adapter' teaches away from a "virtual I/O port," because an adapter merely transforms or adapts a message into a proper format for each delivery channel rather than provide an emulation function.

Further, a prima facie case of anticipation cannot be established based upon Grun, because Grun's 'target channel adapter' 22 merely provides a message specification, and Grun fails to disclose either expressly or inherently the claimed embodiment provides "*a client-side device handler in direct local area network communication with the virtual I/O port in the server and receiving to receive the input-output control from the virtual I/O port in the server and to redirecting the event from the I/O device connected to the client to the virtual I/O port in the server by transmitting transmit the event, from the I/O device connected to the client, to the virtual I/O port in the server*." In other words, Grun's 'target channel adapter' differs from the claimed device handler 26 directly via "*local area network communication ... receiving to receive the input-output control from the virtual I/O port in the server and to redirecting the event from the I/O device connected to the client to the virtual I/O port in the server*." For example, the present application page 7, lines 1-2 provide "the event in the I/O device on the client side is directly transmitted to, e.g., an application on the server side, improving the processing efficiency in the entire system."

Further, in contrast to Grun, the claimed embodiment provides "wherein the server application transmits an application processing result to the computer client via TCP/UDP socket communication, based upon the event received from the I/O device connected to the client via the direct local area network communication."

For example, the present application page 6, line 5 to page 7, line 8, and page 13, lines 7-15, and page 19, lines 26-27, and page 21, lines 7-13 and FIG. 1 support the claim amendments.

In view of the claim amendments and remarks, withdrawal of the rejection of pending claims and allowance of pending claims is respectfully requested.

**CONCLUSION**

There being no further outstanding objections or rejections, it is submitted that the application is in condition for allowance. An early action to that effect is courteously solicited.

Finally, if there are any formal matters remaining after this response, the Examiner is requested to telephone the undersigned to attend to these matters.

Respectfully submitted,  
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Date: September 18, 2007

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